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REPORT OF EXAMINATION OF YAWKEY TRACT

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BUREAU OF ENTOMOLOGY
REPORT OF EXAMINATION
OF
YAWKEY TRACT

At the request of Mr. J.F.Kimball, of the Klamath Forest Protective Association, the writer, in company with W.J.Buckhorn, made an examination of a timbered area known as the Yawkey Tract, north of Fort Klamath, Oregon.

The purpose of the examination was to determine roughly the amount of timber killed by the western pine beetle, (Dendroctonus brevicomis) in yellow pine, and by the mountain pine beetle (Dendroctonus monticolae), in sugar pine, and to determine if any decided increase or decrease in the infestation resulted from the wind blown area or other causes.

PREVIOUS EXAMINATIONS

On July 4, 1922, Mr. Keen of the Bureau of Entomology made an examination of the tract. Prior to this time he found that the loss from beetles had been very slight, probably not over 20,000B.f. per section. He also found that many of the down trees had a few roots remaining in the soil and that such trees would offer a possible source for brood developement which would result in a considerable increase in infestation. In his report, dated July 4, 1922, logging of the down timber was recommended as a possible solution of the problem.

On December 19,1922, Mr. Zumbrunn, made another examination and found the infestation surrounding the windblown area to average about 30 trees per section. Mr. Keen's recommendations at that time were included in a letter to Mr. Kimball, dated January 29,1923.

On July 7,1923 a further examination was made by Mr. Keen and Mr. Person. It was found that the original blow-down had turned out rather small broods. The down trees which had roots in the ground and were still green contained attacks which indicated there had been a decided increase in the number of beetles. At that time the area was found to be exceptionally clean, 39 standing trees being the most found on any section.

On April 17 and 18,1924, the writer found the infestation in the standing timber increasing considerably over that of previous years. The heaviest infestation was found on the slope between Sun Creek and the new highway.

Random strip counts gave the following results:-

Location	Distance	Width of Strip	No.trees	Trees per Sec.
S.31; T32S.R7½E	1 mile	10 ch.	4	30-40
S.32; T32S.R7½E	" "	" "	6	30-40
S.30; " " " "	" "	" "	6	30-40

These strip counts indicated that the infestation at the base of the slope was low and had not increased perceptably.

Another strip count, including an area extending up the slope through and including approximately 80 acres in a blown - down area in section 21; T.32S, R.7½E showed the following results:-

Tree No.	Species	Killer by: D.B.	Dia.	No. Logs	Volume
1	Y.P.	D.B.			group
2	" "	" "	40	9	4000
3	" "	" "	30	4	1050
4	" "	" "	20	5	480
5	" "	" "	12	1	40
6	" "	" "	20	5	480
7	" "	" "	16	2	120
8	S.P.	D&M.	38	5	2300
9	Y.P.	D.B.	22	5	580
10	" "	" "	14	2	100
11	" "	" "	16	2	120
12	" "	" "	30	7	1720
13	" "	" "	32	6	1760
14	" "	" "	24	5	710
15	" "	" "	18	5	410
16	" "	" "	32	6	1760
17	" "	" "	30	6	1500
18	Y.P.	D.B.	26	6	1040
19	" "	" "	38	7	2900
20	" "	" "	21	5	710
21	" "	" "	30	7	1720
Total 21					23,500

Each of these trees were close to a group of old windfalls which might indicate that the increased infestation was due to the favorable conditions in fallen timber for large brood development. All but two or three of the trees contained a heavy overwintering brood and the summer brood will undoubtedly bring the loss for this strip to at least 35,000 b.f. A conservative estimate for the timber killed by beetles on this section would be about 280,000 b.f. for both summer and winter broods, using the strip basis for counting.

As a check the south ½ of section 28 was cruised and all the trees killed last year were counted and marked, with the following results: 27 yellow pine killed by D.brevicomis - Summer brood 8,320 b.f.- winter brood 23,760 b.f., making a total of 32,080 b.f. for yellow pine and 8 sugar pines killed by D.monticolae -(no summer brood)- winter brood 30,020 b.f., making a total of 30,020 b.f. The gradn total for both species was found to be 35 trees on ½ section with a volume of 62,100 b.f.

CONCLUSIONS

The fallen pine in the windblown area has apparently been the cause of a large increase in the amount of standing timber killed. Due to the exceptionally warm , dry, weather conditions, no decrease can be expected during the present year from natural control factors.

Since the large amount of down timber near many of the trees would make burning difficult it might be advisable to pospone the treating of brevicomis trees until fall or winter. The broods of D.monticolae in the sugar pine are for the most part inthe small larvae stage and will emerge somewhat later than those in yellow pine. The sugar pine could be treated by peeling and exposing the bark and such work could be continued without fire hazard until the broods have emerged.

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